

**REMARKS**

This is a response to the Office Action mailed February 8, 2005. A petition for a three (3) month extension of time is submitted herewith. Reconsideration of the rejection is respectfully requested in view of the following remarks.

Claims 24, 25, 36, 42, 44-47, 91, and 97-99 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Sangwan et al. (Pestic. Sci., 1990, 28, 331-335). The rejection is respectfully traversed.

Sangwan et al. describe certain essential oils as having nematocidal activity. Contrary to the Examiner's assertion, there is no description set forth in the Sangwan et al. text indicating that essential oils were applied to plants in order to kill nematodes. Only the nematocidal activity of the essential oils is discussed. Thus, the article neither teaches nor suggests protecting a plant as recited in claim 24 by use of *a composition comprising an oil-in-water emulsion*, comprising in the oil phase, as an active ingredient, as essential oil or at least one component thereof in an amount from 1 to 1000 ppm of the emulsion.

The absence of such a teaching is critical since *essential oils are phytotoxic* and are actually used as herbicides. See, e.g., U.S. Pat. No. 6,506,707 entitled, "Herbicidal Compositions Containing Plant Essential Oils and Mixtures or Blends Thereof" (the '707 patent')<sup>1</sup>. See also, e.g., the present specification, the paragraph bridging pages 15 and 16, where it states:

Essential oils as extracted are not soluble in water and are phytotoxic in undiluted oil form, and therefore, cannot be used for direct foliar applications....

Accordingly, Sangwan et al. discloses nothing more than the discussion in the Background in the present specification, e.g., at page 2, lines 10-23, which indicates that it was known that essential oils have *in vitro* effects against fungi, bacteria, viruses and nematodes.

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<sup>1</sup> Although the '707 patent was filed after the present application, it clearly corroborates applicant's assertions that essential oils are phytotoxic.

Application No.: 09/807,254

Amendment dated August 4, 2005


Reply to Office Action of February 8, 2005

At page 3 of the Office Action, the Examiner states that, "In the absence of unexpected results all methods of application of the instant composition to plants are equivalent." First, the cited references do not disclose the "instant composition" since they neither teach nor suggest, *inter alia*, an oil-in-water emulsion containing an essential oil or any use thereof. Second, prior to the present invention, essential oils, when applied to plants, were herbicidal. Indeed, the '707 patent, at column 4, starting at line 34, even describes carriers for the essential oils which act as herbicides. At column 6, lines 51-60, *herbicidal* concentrations of essential oil in a commercial carrier range from .01-95% and for direct foliar application: 0.0001- 10%. Since essential oils are clearly toxic to plants at concentrations within the presently claimed range, it is indeed unexpected that the presently claimed *emulsion* can be applied to plants at concentrations sufficient to protect them from pathogenic or parasitic organisms without killing the plants at the same time. Accordingly, the rejection should be withdrawn.

Applicant gratefully acknowledges the indication that claims 70-76, 78-86 and 96 are allowable and that claims 26-35, 37-39, 48 and 117 would be allowable if rewritten in independent form, including all the limitations of the base claim and any intervening claims. It is respectfully requested, however, that in view of the above remarks, the rejection of the base claims should be withdrawn and all claims are allowable.

A good faith attempt has been made to place all the claims in the present application in condition for allowance. If there is any point requiring discussion or clarification, the Examiner is respectfully urged to telephone the undersigned attorney for applicant at the below indicated telephone number for resolution.

Respectfully submitted,

  
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